

DUAL-FREQUENCY-ILLUMINATING REFLECTOR

ABSTRACT OF THE DISCLOSURE

An illuminating reflector system is provided for transmitting first and second frequency bands for satellite and terrestrial communications. The illuminating reflector includes a first reflector configured to transmit a first portion of the first frequency band in an dispersed beam, to reflect a second portion of the first frequency band, and to transmit the second frequency band; a second reflector configured to reflect the second frequency band received from the first reflector; and a primary reflector configured to receive the second portion of the first frequency band reflected from the first reflector, to receive the second frequency band reflected from the second reflector, and to reflect the second portion of the first frequency band and the second frequency band in a substantially collimated beam.

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